

WHAT IS CLAIMED IS:

1. A method for disrupting cells comprising:  
 providing a sonic bath comprising a first liquid;  
 placing into said liquid a vessel comprising cells in a second liquid; and  
 5 subjecting said cells to ultrasonic energy from said sonic bath of sufficient power and  
 duration to cause disruption of said cells in the absence of beads.

2. The method of claim 1 wherein said second liquid is at an alkaline pH.

3. The method of claim 2 wherein the temperature of said first liquid is about 65°C to  
 about 75°C.

4. The method of claim 3 wherein the cells are mycobacterial cells.

5. The method of claim 1 wherein said second liquid is exposed to a substance or  
 condition which reduces the surface tension of said second liquid.

6. The method of claim 5 wherein the temperature of said first liquid is about 65°C to  
 about 75°C.

7. The method of claim 6 wherein the cells are mycobacterial cells.

8. A method for disrupting cells by applying ultrasonic energy to a sample of cells in a  
 liquid, wherein said liquid is exposed to a substance or condition which reduces the surface  
 tension of said liquid.

9. The method of claim 8 wherein said liquid is contained in a vessel and said vessel is in  
 20 a sonic bath comprising a second liquid.

10. The method of claim 8 wherein beads are present in said liquid.

11. The method of claim 8 wherein said liquid is at an alkaline pH.

12. The method of claim 9 wherein the temperature of said second liquid is about 65°C to  
 about 75°C.

13. The method of claim 12 wherein the cells are mycobacterial cells.